

*Attachment I to Form RD 1942-19, Agreement for Engineering Services, dated \_\_\_\_\_  
Between \_\_\_\_\_ (OWNER) and \_\_\_\_\_ (OWNER'S ENGINEER).*

### **MEDIAN FEES FOR PROFESSIONAL ENGINEERING SERVICES AS A PERCENTAGE OF NET CONSTRUCTION COST**

The fees for services described in SECTION A of the Agreement for Engineering Services is provided for in the tables below. The term "OWNER", as used herein, shall refer to the entity applying for a Rural Utilities Service (RUS) loan and/or grant. The Rural Utilities Service, is an agency within the United States Department of Agriculture, rural development mission area, and is referred to in this Agreement as "AGENCY".

**Table I** may be used for that portion of a construction project which is unusually complex because it includes a complete water treatment plant, sewer collection, sewer treatment plant, water impoundment, or extensive rehabilitation of an existing facility. Compensation for engineering of water lines of diameter smaller than 16 inches and sewer lines of diameter smaller than 24 inches shall be described by Table I.

**Table II** shall apply to all work not provided for in Table I or III.

**Table III** shall apply to sewage treatment facilities utilizing facultative/oxidation ponds and/or artificial wetlands. AGENCY encourages application of Value Engineering during the design and procurement of facilities by eligible OWNERS and their ENGINEERS in order to reduce the cost of a project while maintaining or improving performance over that of a conventional mechanical sewage treatment facility. Although Value Engineering efforts are directed at reducing costs, equal consideration is given to maintaining and improving quality, maintainability, performance, safety, environmental sensitivity, and reliability. Those ENGINEERS able to demonstrate successful application of Value Engineering, with results approved by the AGENCY, that resulted in a reduced fee for engineering services when compared with the fee that would have been earned from the design of a conventional mechanical sewage treatment plant, shall present a written request with justification for approval by the AGENCY and the OWNER of a negotiated increase in fees to compensate the Owner's ENGINEER for the loss of fees realized.

| Total Actual<br>Construction Cost | Table I<br>% Fee | Table II<br>% Fee | Table III<br>% Fee |
|-----------------------------------|------------------|-------------------|--------------------|
| Below \$300,000                   | Negotiated       | Negotiated        | Negotiated         |
| \$300,000                         | 9.6              | 7.8               | 10.6               |
| \$400,000                         | 9.1              | 7.4               | 10.1               |
| \$500,000                         | 8.5              | 7.1               | 9.5                |
| \$600,000                         | 8.2              | 6.9               | 9.2                |
| \$700,000                         | 8.0              | 6.8               | 9.0                |
| \$800,000                         | 7.8              | 6.6               | 8.8                |
| \$900,000                         | 7.6              | 6.5               | 8.6                |
| \$1,000,000                       | 7.5              | 6.4               | 8.5                |
| \$2,000,000                       | 6.9              | 5.8               | 7.9                |
| \$3,000,000                       | 6.7              | 5.6               | 7.7                |
| \$5,000,000                       | 6.3              | 5.2               | 7.3                |
| Above \$5,000,000                 | Negotiated       | Negotiated        | Negotiated         |

The engineering services fee for project costs falling between the figures on the above Tables shall be interpolated to the nearest one-tenth of one percent. Total actual construction cost includes the total of all construction contracts and the value of material furnished by the OWNER and incorporated into the construction. Subject to AGENCY's approval of ENGINEER's written justification, separate contracts, in amounts less than \$300,000 each, may be used to describe construction work requiring extraordinary amounts of engineering more appropriately compensated using the negotiated fees described above.

In the event a Resident Inspector from the local area, with qualifications deemed appropriate by the AGENCY, is not available to the OWNER, the ENGINEER shall present a written request with justification for approval from the OWNER and the AGENCY to allow reimbursement of the travel related costs itemized on page 3 of Attachment I, as an additional project cost to facilitate the ENGINEER's hiring of a qualified out-of-area Resident Inspector. Regardless of whether the Resident Inspector is employed by the OWNER or the Owner's ENGINEER, the ENGINEER is not relieved of providing general engineering inspections by a qualified Engineer. The ENGINEER, employed by the OWNER, is required to provide general supervision of the work of the Resident Inspector and oversight of the construction activity. Periodic visits to the jobsite by the ENGINEER are expected. A written report of the findings of each such visit shall be presented, along with the Resident Inspector's daily written reports of construction progress, to the AGENCY's Local Office with each partial payment estimate.

Construction staking shall be paid as outlined in Section D-8. The Construction Inspector will not be used to provide this information during construction. Additional surveying work caused by urban conditions and complex settings necessitating use of a 1 inch = 50 feet (or less) survey map scale in order to properly detail the work involved including design surveys, are subject to the ENGINEER's written request and justification and written approval from the AGENCY and the OWNER prior to work start. This surveying work will be compensated as an additional project cost at the hourly rates described on Page 3 of Attachment I.

In the event an Easement Acquisition Specialist from the local area, with qualifications deemed appropriate by the AGENCY, is not available to the OWNER, the ENGINEER shall present a written request with justification for approval from the AGENCY and the OWNER to allow reimbursement of the travel related costs itemized on page 3 of Attachment I, to facilitate the ENGINEER's hiring of an out-of-area Easement Acquisition Specialist to perform work treated as Additional Engineering Services to be compensated as an additional project cost at the hourly rates described on Page 3 of Attachment I. Regardless of whether the Easement Acquisition Specialist is employed by the OWNER or the Owner's ENGINEER, the ENGINEER is not relieved of providing general engineering inspection by a qualified Engineer.

In the event a dispute arises between a contractor and the OWNER of the project under construction, and one or both of the parties has given a written notice to the participants that voluntary resolution of the dispute is not anticipated, Owner's ENGINEER shall, within thirty days after receipt of said written notice, present a written recommendation to the contractor, to the OWNER, and to the AGENCY that is based upon sound engineering practice intended to facilitate conflict resolution on a practical basis that is equitable to both the OWNER and the contractor.

Upon satisfactory completion of all project construction, Owner's ENGINEER shall provide to the OWNER one set of reproducible record ("as-built") drawings, and two sets of prints, at no additional cost to the OWNER. These "as-built" drawings shall be a reflection of what was installed, showing actual location tie-downs for valves and other principal elements of the project construction, where knowledge of location and function are important.

Texas RUS Instruction 1780 Subpart C (Rev. 03/02) requires Owner's ENGINEER to consider water and sewer treatment facility design alternatives as may be suggested by the OWNER or the AGENCY. In the event the comparative study of the design alternatives requested will require significant additional research and/or engineering work, the Owner's ENGINEER may elect to present, prior to performing the comparative study, a written request with justification for the AGENCY to negotiate an increase to the ENGINEER's fees. OWNER's written approval of the fee negotiated is required.

**SCHEDULE OF RATES AND CHARGES FOR ADDITIONAL ENGINEERING SERVICES  
AS REFERRED TO IN SECTIONS C AND D OF  
THE AGREEMENT FOR ENGINEERING SERVICES**

PERSONNEL

RATE PER HOUR

Engineering

|  |          |
|--|----------|
| Principal                                | \$ _____ |
| Project Engineer                         | \$ _____ |
| Design Engineer                          | \$ _____ |
| Project Manager                          | \$ _____ |
| E.I.T. (Engineer in Training)            | \$ _____ |
| Sr. Engineering Technician               | \$ _____ |
| Engineering/Environmental Technician     | \$ _____ |
| Environmental Scientist/Coordinator (**) | \$ _____ |
| CAD Technician                           | \$ _____ |
| Draftsman                                | \$ _____ |
| Administrative Clerk                     | \$ _____ |
| Clerk                                    | \$ _____ |
| Easement Acquisition Specialist (*)      | \$ _____ |

Inspection

|                                     |          |
|-------------------------------------|----------|
| Resident Project Representative (*) | \$ _____ |
|-------------------------------------|----------|

Surveying

|  |          |
|--|----------|
| Three-man Party                              | \$ _____ |
| Two-man Party                                | \$ _____ |
| GPS Party                                    | \$ _____ |
| Registered Professional Land Surveyor (RPLS) | \$ _____ |
| Technician                                   | \$ _____ |

**REIMBURSABLE EXPENSES (\*)**

1. Travel at \$ \_\_\_\_\_ 0.36/mile plus time at above rates.
2. Actual cost of subsistence and lodging.
3. Actual cost of telephone calls, express charged, postage, etc.
4. Actual cost of materials used in surveying, drafting, printing and reproduction.
5. Actual cost times 1.05 for special tests and special consultants as referred to in Section D. This includes special surveys required for environmental report such as biological or archaeological surveys.

(\*) Unless approved in writing by the USDA Rural Utilities Service and the Owner, the above listed items will not apply to the Resident Inspector and the Easement Acquisition Specialist, except for on-site travel and telephone calls.

(\*\*) Includes any technical specialty associated with environmental compliance, such as; environmental scientist, geologist, hydrologist, biologist, or cultural resources specialist.

**SCHEDULE OF RATES AND CHARGES FOR ALLOWABLE RATES AND CHARGES FOR  
ADDITIONAL ENGINEERING SERVICES  
AS REFERRED TO IN SECTIONS C AND D OF  
THE AGREEMENT FOR ENGINEERING SERVICES  
EFFECTIVE 01/03**

| <u>PERSONNEL</u>                             | <u>RATE PER HOUR</u>  |
|--|---|
| <hr/>  |   |
| <u>Engineering</u>                           |   |
| Principal                                    | \$ _____ 120.00   |
| Project Engineer                             | \$ _____ 95.00  |
| Design Engineer                              | \$ _____ 85.00  |
| Project Manager                              | \$ _____ 85.00  |
| E.I.T. (Engineer in Training)                | \$ _____ 65.00  |
| Sr. Engineering Technician                   | \$ _____ 65.00  |
| Engineering/Environmental Technician         | \$ _____ 55.00  |
| Environmental Scientist/Coordinator (**)     | \$ _____ 65.00  |
| CAD Technician                               | \$ _____ 45.00  |
| Draftsman                                    | \$ _____ 40.00  |
| Administrative Clerk                         | \$ _____ 40.00  |
| Clerk  | \$ _____ 35.00  |
| Easement Acquisition Specialist (*)          | \$ _____ 45.00  |
| <u>Inspection</u>                            |   |
| Resident Project Representative (*)          | \$ _____ 45.00  |
| <u>Surveying</u>                             |   |
| Three-man Party                              | \$ _____ 105.00   |
| Two-man Party                                | \$ _____ 85.00  |
| GPS Party                                    | \$ _____ 125.00   |
| Registered Professional Land Surveyor (RPLS) | \$ _____ 80.00  |
| Technician                                   | \$ _____ 45.00  |
| <b>REIMBURSABLE EXPENSES (*)</b>             |   |
| 1.   | Travel at \$ _____ 0.36/mile plus time at above rates.  |
| 2.   | Actual cost of subsistence and lodging.   |
| 3.   | Actual cost of telephone calls, express charged, postage, etc.  |
| 4.   | Actual cost of materials used in surveying, drafting, printing and reproduction.  |
| 5.   | Actual cost times 1.05 for special tests and special consultants as referred to in Section D. This includes special surveys required for environmental report such as biological or archaeological surveys.     |
| (*)  | Unless approved in writing by the AGENCY and the OWNER, the above listed items will not apply to the Resident Inspector and the Easement Acquisition Specialist, except for on-site travel and telephone calls. |
| (**)   | Includes any technical specialty associated with environmental compliance, such as; environmental scientist, geologist, hydrologist, biologist, or cultural resources specialist.                               |

### COMPENSATION FOR ENGINEERING SERVICES

Form RD 1942-19, Section B – COMPENSATION FOR ENGINEERING SERVICES; Items #1, #2, and #3(a) are replaced with the following payment provisions:

1. The OWNER shall compensate the ENGINEER for preliminary engineering services, as described in Section A – ENGINEERING SERVICES, (Items 1, 2, & 3) shall include a Preliminary Engineering Report for \$\_\_\_\_\_ and an Environmental Report for \$\_\_\_\_\_. Compensation for preliminary engineering services shall be paid in full from loan proceeds after the review and approval of the Preliminary Engineering Report and Environmental Report by the OWNER and the AGENCY.

2. The OWNER shall compensate the ENGINEER for design and contract administration engineering services as described in Section A – ENGINEERING SERVICES (Items 4 through 22) and this Attachment in accordance with the following:

☐ Table I for \_\_\_\_\_  
☐ Table II for \_\_\_\_\_  
☐ Table III for \_\_\_\_\_

The actual construction cost on which compensation is determined shall be the total of all construction contracts and exclude legal fees, administrative costs, engineering fees, land rights, acquisition costs, water costs, and interest expense incurred during the construction period.

3. The compensation for engineering services, design and contract administration as described in Section A – ENGINEERING SERVICES shall be payable from loan proceeds, as follows:

☐ **At 25%** completion of drawings, specifications, cost estimate, and contract documents the ENGINEER shall be paid a sum not to exceed 15.0% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$\_\_\_\_\_.

☐ **At 50%** completion of drawings, specifications, cost estimate, and contract documents the ENGINEER shall be paid an additional 15.0% for a sum not to exceed 30.0% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$\_\_\_\_\_.

☐ **At 75%** completion of the drawings, specifications, and contract documents, the ENGINEER shall be paid an additional 15% for a sum not to exceed 45.0% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$\_\_\_\_\_.

☐ **At 100%** completion of the drawings, specifications, and contract documents and acceptance of the same by the OWNER and USDA Rural Utilities Service, the ENGINEER shall be paid an additional 25% for a sum not to exceed 70% of the total compensation payable under Item #2 above. Accordingly, the estimated compensation for this payment will be \$\_\_\_\_\_.

**It is understood by the OWNER and the ENGINEER that AGENCY provided loan funds will not be provided for payment of Project costs until after loan closing and executed construction contracts have been approved.**

### INVOICES FOR ENGINEERING SERVICES

1. Invoices for engineering services shall identify the service in accordance with the Agreement for Engineering Services. Services shall be identified on each invoice as follows:
  - a. Preliminary Engineering Services (Preliminary Engineering Report and Environmental Report). The cost of the Environmental Report shall include the cost of preparing the report, all maps/attachments and initial contacts/consultation with regulatory authorities. Special studies or surveys unique to the proposal, such as cultural resource surveys, shall be listed separately and included as Additional Engineering Services.
  - b. Design and Contract Administration (basic services as described in Section A).
  - c. Resident Inspection (See page 2)
  - d. Additional Engineering Services (Section D provides for prior written approval by the OWNER and the AGENCY).
2. Fees for Design and Contract Administration should initially be based on the estimated construction cost. After the contracts are awarded, fees shall be adjusted to the awarded contract cost, including change orders. Fees shall not be based on bids which exceed the funds allocated and budgeted.
3. In accordance with the Agreement, additional engineering services require prior written authorization by the OWNER and written approval by the AGENCY. AGENCY approval of additional engineering services for all projects will require the review of the following:
  - a. Written authorization from the OWNER.
  - b. A complete description of the additional services authorized by the OWNER.
  - c. Cost of the additional services authorized by the OWNER.
4. Unless reviewed and approved by the AGENCY in advance, redesigns required to bring the construction cost within the funds allocated and budgeted shall be the responsibility of the ENGINEER without additional compensation paid by the OWNER.
5. Engineering services for a Project using AGENCY financing shall be performed under a single engineering services agreement and the ENGINEER shall not enter into side agreements with the OWNER without AGENCY approval.

**ADDITIONAL ENGINEERING SERVICES**

For projects involving wastewater collection, the detailed topographic surveys for the designing of gravity flow sewer collection lines shall be considered as an additional engineering service. This requirement is removed from Section A – ENGINEERING SERVICES, Item 4, for wastewater collection systems only.

The cost for additional consultation as may be required with regulatory authorities should be shown as an additional cost charged at the appropriate hourly rate.

\_\_\_\_\_  
Presiding Officer of Governing Body of OWNER

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner's ENGINEER

\_\_\_\_\_  
Date

APPROVED:

AGENCY (RURAL UTILITIES SERVICE)

By \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_